

Student Name _____

Teacher Name _____

School _____

System _____

ACH



TENNESSEE



Mathematics



Part 1

1 Which list shows fractions in order from least to greatest?

A $\frac{1}{4}, \frac{1}{2}, \frac{1}{5}$

B $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}$

C $\frac{1}{5}, \frac{1}{4}, \frac{1}{2}$

D $\frac{1}{4}, \frac{1}{5}, \frac{1}{2}$

2 Which number sentence is true?

A $(2 + 7) + 4 = 2 + (7 + 4)$

B $(2 + 7) + 4 = (2 + 7) + (2 + 4)$

C $(2 + 7) + 4 = (2 \times 7) + (2 \times 4)$

D $(2 + 7) + 4 = 2 \times (7 \times 4)$

- 3 Mr. Johnson used a thermometer to complete a task. Which could be the task Mr. Johnson completed using a thermometer?
- A measuring the amount of water in a cup
 - B measuring the temperature in a room
 - C measuring the height of a student
 - D measuring the weight of a box

- 4 A number sentence is shown below.

$$8 \times \square = 56$$

Which number sentence is in the same fact family?

A $\square - 8 = 56$

B $8 + \square = 56$

C $8 \times 56 = \square$

D $56 \div \square = 8$

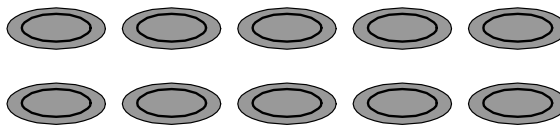
- 5 Mrs. Haug built a fence around her garden. The length and width of her garden are shown below.



What is the perimeter of the fence Mrs. Haug built?

- A 14 feet
- B 12 feet
- C 10 feet
- D 7 feet

6 A group of gray plates is shown below.



Which fraction represents the part of the group that is gray?

A $\frac{1}{10}$

B $\frac{2}{5}$

C $\frac{10}{10}$

D $\frac{10}{2}$

- 7 Yesterday, 322 people entered a store. Today, 795 people entered the store. Exactly how many more people entered the store today than yesterday?
- A 472
B 473
C 572
D 573

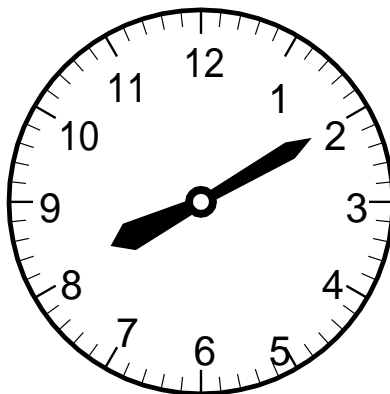
- 8 Use the inch side of your ruler to help you solve this problem.

The line segment below shows the length of a bracelet.



- A $13\frac{1}{2}$ inches
B $12\frac{1}{2}$ inches
C 6 inches
D 5 inches

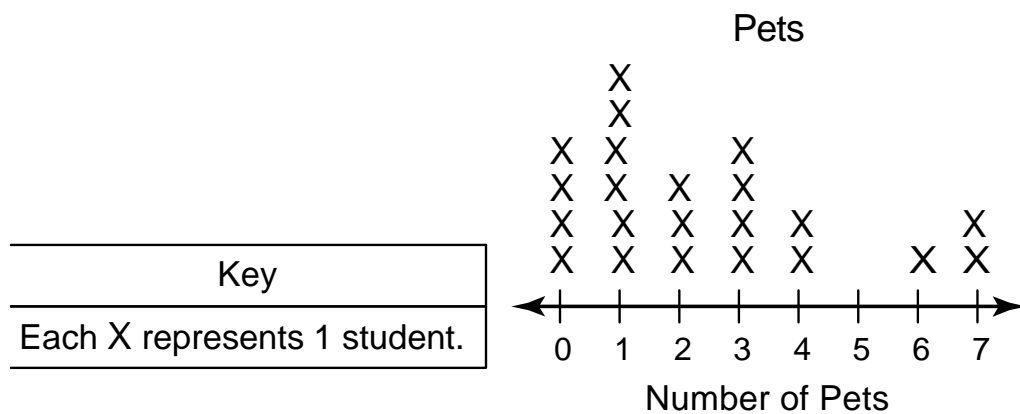
- 9 The clock below shows the time Tina stopped working on her science project.



Tina worked on this project for 45 minutes. At what time did Tina start working on her science project?

- A 7:25
- B 7:35
- C 8:45
- D 8:55

10 The line plot below shows the numbers of pets some students have in their homes.



Exactly how many students have at least 3 pets?

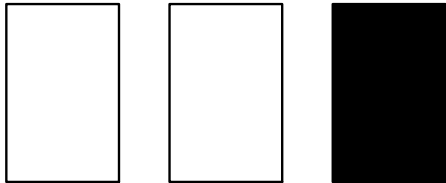
- A 4
- B 5
- C 9
- D 13

- 11 A set of game cards has only black and white cards. Two-thirds of the cards in the set are black. Which picture best represents this set of game cards?

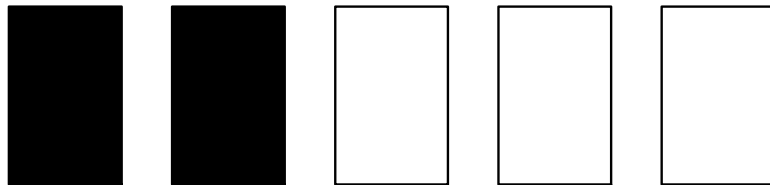
A



B



C



D



12 What is the value of the 9 in the number 91,873?

A 90,000

B 9,000

C 900

D 90

13 Yesterday Patrick walked 12 laps around a track. Today he walked 6 laps around the track. Which number sentence could be used to find the difference between the numbers of laps Patrick walked on these two days?

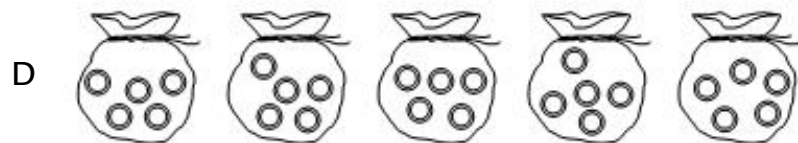
A $6 \times \square = 12$

B $12 - 6 = \square$

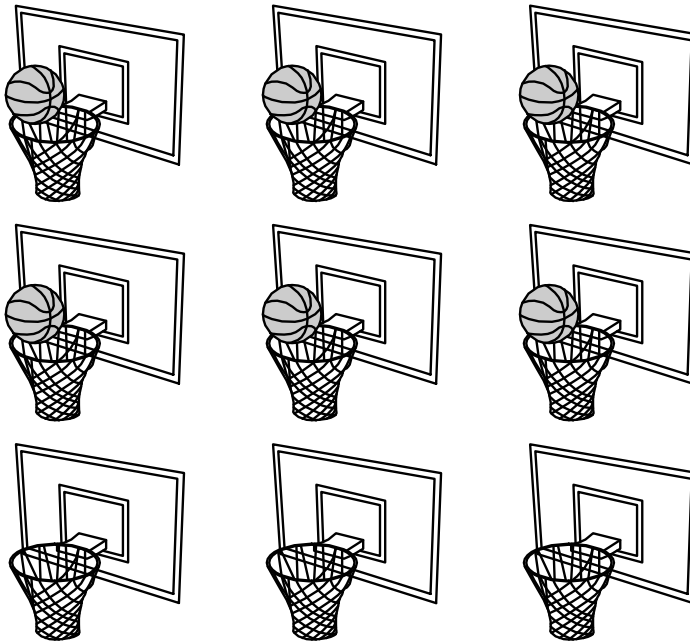
C $12 + 6 = \square$

D $\square \div 12 = 6$

- 14 Jackson put 3 tokens in each of 5 bags. Which model best represents the total number of tokens in these 5 bags?



15 This picture shows $\frac{6}{9}$ of the baskets with a basketball.



Which fraction is equivalent to $\frac{6}{9}$?

- A $\frac{1}{9}$
- B $\frac{1}{3}$
- C $\frac{1}{2}$
- D $\frac{2}{3}$

16 Christopher has one window in his room.

- The window has exactly 4 angles.
- The window has 2 sets of congruent sides.

Which of these could be the shape of Christopher's window?

- A triangle
- B octagon
- C rectangle
- D trapezoid

- 17 The table below shows the prices of tickets and a parking pass for a festival.

Festival Prices

Item	Price
Senior Ticket	\$10
Adult Ticket	\$14
Child Ticket	\$9
Parking Pass	\$6

Candace will pay for 2 adult tickets, 2 child tickets, and 1 parking pass. What is the total amount of money Candace will pay for these tickets and parking pass?

- A \$22
- B \$29
- C \$39
- D \$52

18 A group of socks is shown below.



Which fraction best represents the part of the group of socks that is black?

A $\frac{1}{4}$

B $\frac{4}{6}$

C $\frac{4}{4}$

D $\frac{4}{2}$

- 19 Four out of ten students in a science club are boys. Which fraction shows another way to write four out of ten?

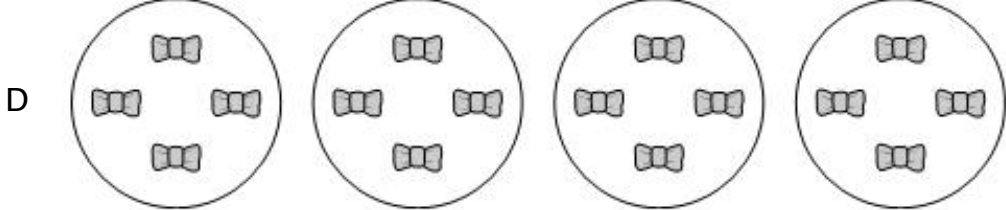
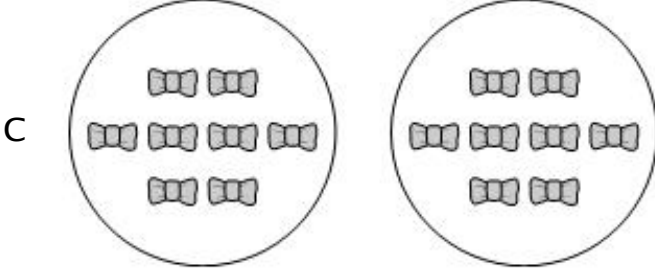
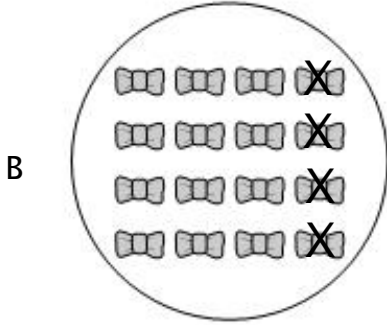
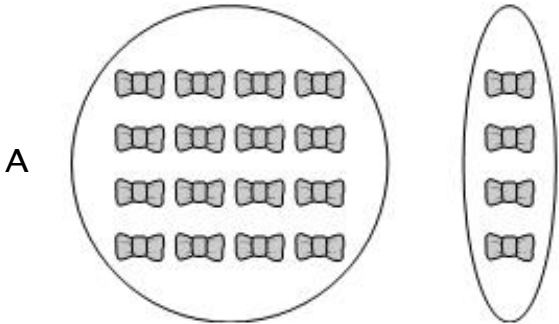
A $\frac{10}{4}$

B $\frac{4}{4}$

C $\frac{4}{6}$

D $\frac{4}{10}$

20 Which model best represents the expression $16 \div 4$?



21 Which number sentence is true when the number 8 is placed in the box?

A $\square \div 3 = 24$

B $6 \times \square = 42$

C $32 \div \square = 4$

D $\square \times 0 = 8$

Part 2

- 22 Greg wrote this number sentence in his math journal.

$$32 \div \square = 8$$

Which number sentence could Greg use to correctly solve this problem?

A $32 = \square \times 8$

B $32 = \square + 8$

C $32 \times 8 = \square$

D $32 + 8 = \square$

- 23 A loaf of bread weighs about one pound. Which item could also weigh about one pound?

A a toothbrush

B a textbook

C a feather

D a pen

- 24 There were 52,796 babies born in Tennessee one year. What is the value of the 7 in the number 52,796?

A 70

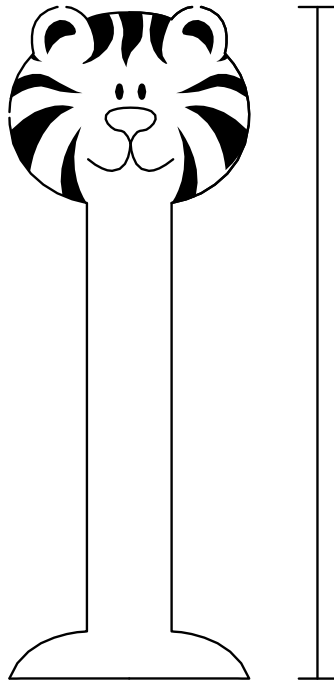
B 700

C 7,000

D 70,000

25 Use the inch side of your ruler to help you solve this problem.

A picture of a bookmark is shown below.



What is the length of this picture, to the nearest half inch?

A $3\frac{1}{2}$ inches

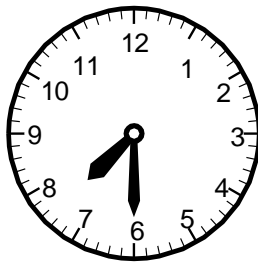
B $4\frac{1}{2}$ inches

C 9 inches

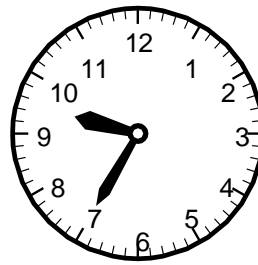
D 10 inches

- 26 Keenan's math class starts at 8:35 A.M. His class ends 1 hour and 5 minutes later. Which clock shows the time Keenan's math class ends?

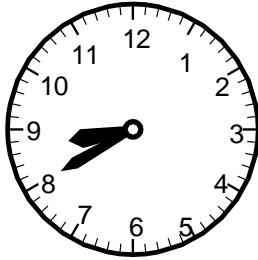
A



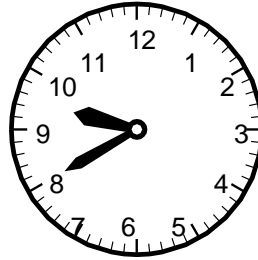
C



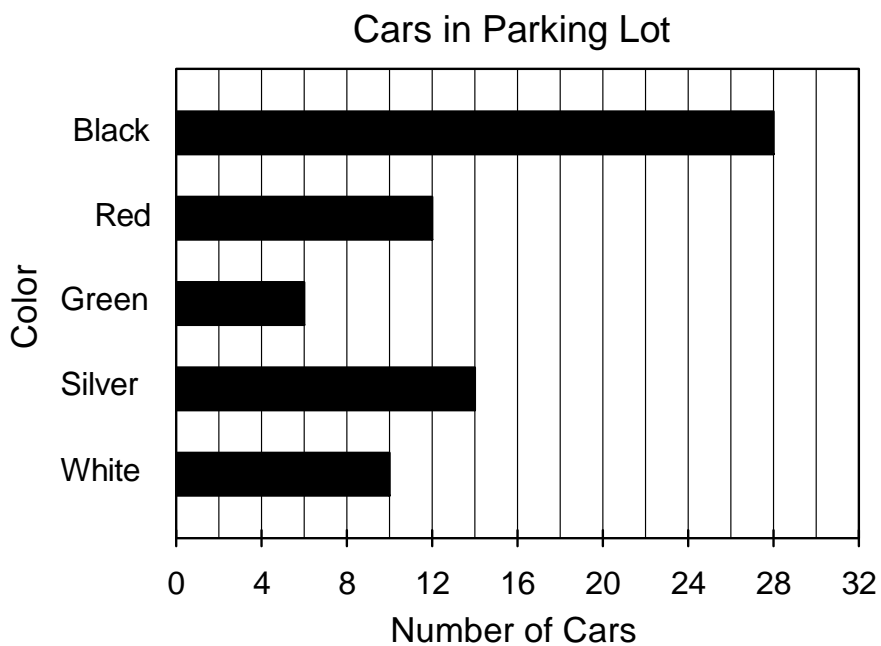
B



D



- 27 The graph below shows the numbers of different colors of cars Xander saw in a parking lot.



Based on the graph, what is the total number of cars Xander saw in this parking lot?

- A 50
- B 64
- C 70
- D 76

28 A soccer ball has two different polygons on it, as shown below.



Which term describes the shaded polygon?

- A trapezoid
- B pentagon
- C hexagon
- D octagon

29 Which number goes in the to make the equation true?

$$7 \times 9 = \boxed{}$$

- A 54
- B 56
- C 63
- D 72

30 Which picture correctly models 4×3 ?

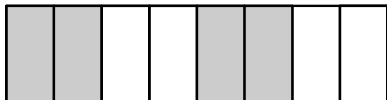


31 The model below is shaded to represent a fraction.

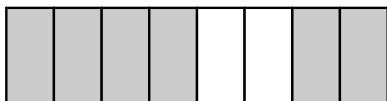


Which model is shaded to represent an equivalent fraction?

A



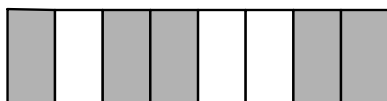
B



C



D



32 Which number goes in the to make the number sentence true?

$$8 \times \text{} = 40$$

A 48

B 32

C 6

D 5

33 Which fraction is closest in value to 1 whole?

A $\frac{3}{4}$

B $\frac{3}{5}$

C $\frac{3}{6}$

D $\frac{3}{7}$

34 Ella filled four objects with water. Which of the objects Ella filled could be measured in gallons?

A



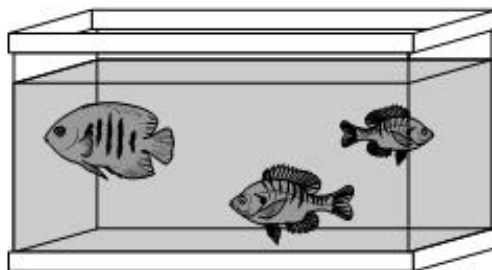
B



C



D



35 Felicia has 20 pages of stickers. Each page has 10 stickers. Which expression can be used to find the total number of stickers Felicia has on these pages?

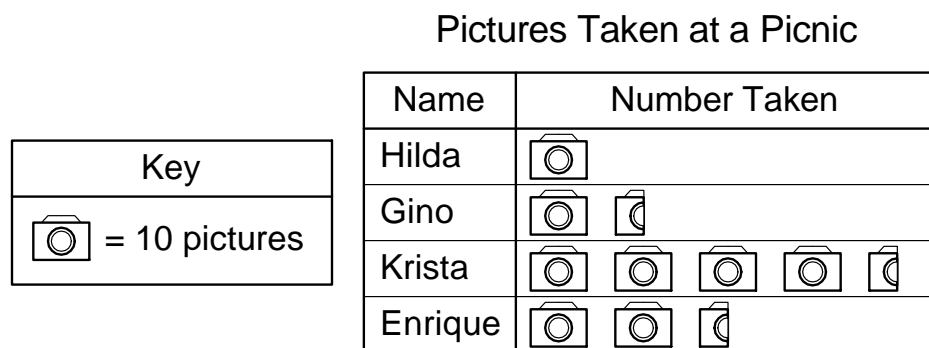
A 20×10

B $20 \div 10$

C $20 - 10$

D $20 + 10$

- 36 The graph below shows the number of pictures taken by four people at a picnic.



According to the graph, what is the total number of pictures taken by these four people?

- A 80
- B 95
- C 105
- D 110

- 37 The table below shows the numbers of two types of fish caught one weekend at a lake.

Fish

Type of Fish	Number Caught
Carp	89
Trout	172

How many more trout were caught than carp?

- A 261
B 193
C 117
D 83
- 38 Vincent put 3 cups of pasta into each salad he made. He put a total of 18 cups of pasta into the salads. Which number sentence could be used to find the number of salads Vincent made?

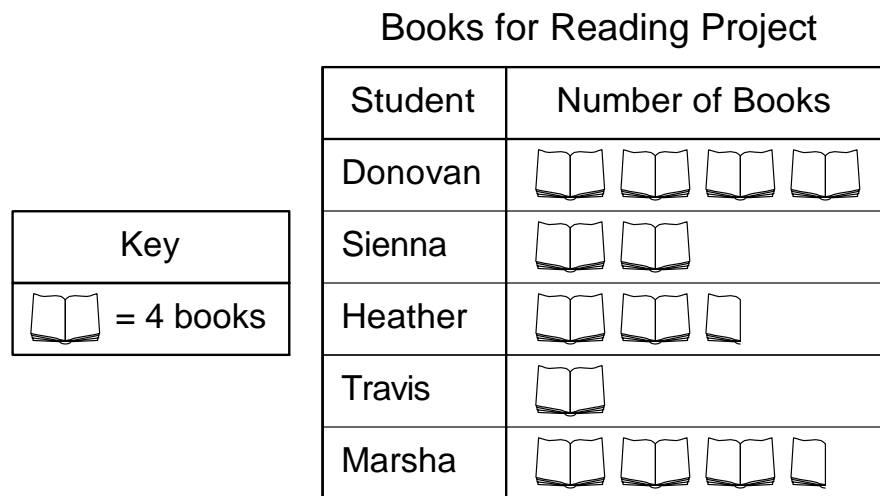
A $18 \div \square = 3$

B $18 - \square = 3$

C $18 + 3 = \square$

D $18 \times 3 = \square$

- 39 The graph below shows the number of different books five students used for a reading project.



Based on the graph, what is the total number of books used by these five students?

- A 12
 - B 14
 - C 48
 - D 52
- 40 A librarian put 40 books on each of 10 shelves. Exactly how many books did the librarian put on these shelves?
- A 40
 - B 50
 - C 400
 - D 500

41 Gabriel had one whole pizza.

- The pizza was divided into equal-sized slices.
- Some of the slices were topped with pepperoni, but not all of them.

Which fraction could represent the part of the pizza that was topped with pepperoni?

A $\frac{3}{10}$

B $\frac{10}{10}$

C $\frac{10}{7}$

D $\frac{10}{1}$

42 Landon bought a jar of pickles, like the one shown below.



Which unit of measure is best to use when measuring the height of this jar?

- A yard
- B inch
- C mile
- D foot

43 Which number sentence correctly shows the commutative property?

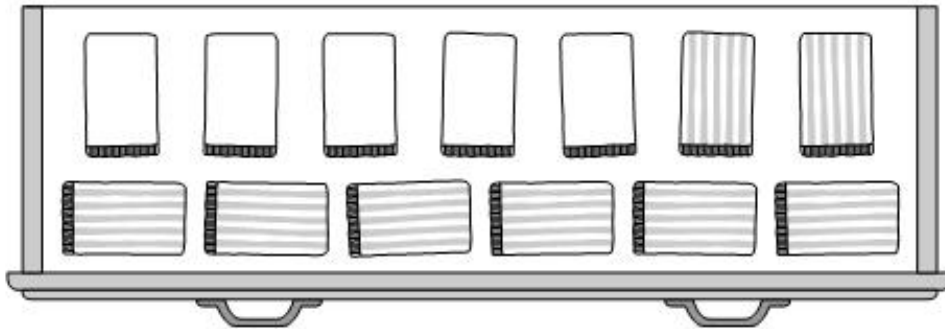
- A $(6 + 4) + 1 = 6 + (4 \times 1)$
- B $(6 + 4) + 1 = 6 \times (4 + 1)$
- C $(6 + 4) + 1 = (4 \times 6) \times 1$
- D $(6 + 4) + 1 = (4 + 6) + 1$

44 Multiply: $8 \times 3 =$

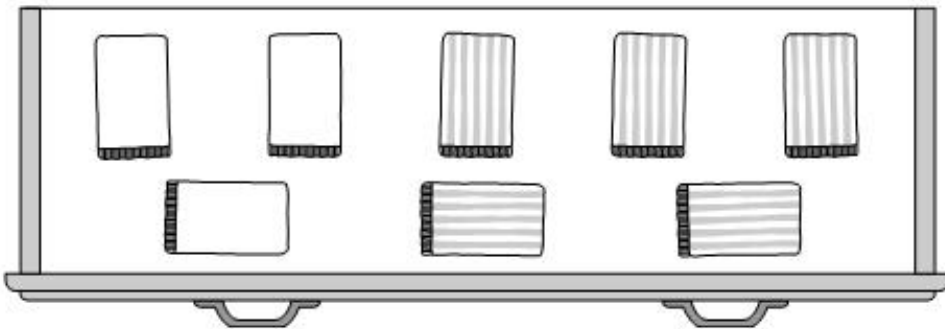
- A 24
- B 21
- C 16
- D 11

- 45 A drawer contains solid white towels and striped towels. The fraction of the towels in the drawer that are solid white is $\frac{5}{8}$. Which picture best represents the towels in this drawer?

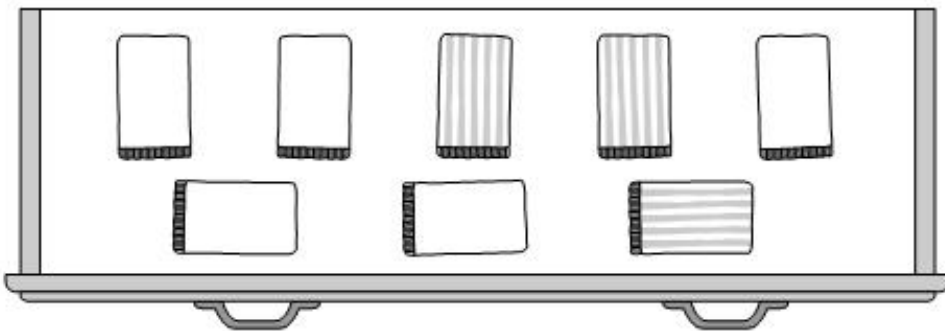
A



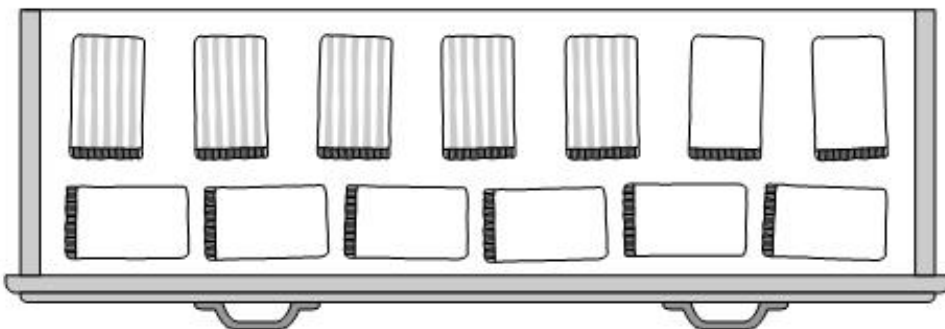
B



C



D



Mathematics Answer Key

Question	SPI	Answer		Question	SPI	Answer
1	2.13	C		24	2.2	B
2	3.1	A		25	4.6	A
3	1.7	B		26	1.2	D
4	2.8	D		27	5.2	C
5	4.4	A		28	4.1	B
6	2.12	C		29	2.6	C
7	2.9	B		30	2.5	B
8	4.6	D		31	2.10	B
9	1.2	A		32	3.3	D
10	5.1	C		33	2.13	A
11	2.11	A		34	4.5	D
12	2.2	A		35	1.5	A
13	3.2	B		36	5.1	B
14	1.5	C		37	2.9	D
15	2.10	D		38	3.2	A
16	4.1	C		39	5.2	D
17	5.2	D		40	2.7	C
18	2.11	B		41	2.12	A
19	1.4	D		42	1.7	B
20	2.5	D		43	3.1	D
21	3.3	C		44	2.6	A
22	2.8	A		45	1.4	C
23	4.5	B				



Tennessee Comprehensive Assessment Program

Achievement Test ~ Grade 3

Practice Test

Version B

